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AMENDMENTS TO THE CLAIMS:

Amend the claims as follows:

1.(original)   A method in a wireless communication system of providing timing information for a received transmit signal, comprising

providing on a receiving side a training signal relating to a known signal portion of the transmit signal;

scaling the training signal;

quantizing the scaled training signal;

correlating one or more parts of the received transmit signal with the scaled training signal to obtain one or more correlation results; and

determining the timing information on the basis of the correlation results.

2.(original)   The method according to claim 1,

further comprising varying a scaling factor to control a correlation complexity.

3.(currently amended)   The method according to claim 1 or 2,

wherein the training signal comprises complex training values and wherein a real part and an imaginary part of each training value are quantized jointly.

4.(original)   The method according to claim 3,

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wherein, during quantization, the training values are mapped on a

predefined set of pure real and pure imaginary values.

5.(original)   The method according to claim 4,

wherein the predefined set of pure real and pure imaginary values

comprises a value zero.

6.(original)   The method according to claim 5,

wherein the scaling factor is varied to adjust the number of training values

mapped on the value zero.

7.(currently amended)   The method according to ~~one of claims 1 to 6~~claim 1,

wherein the provided timing information is an optimum timing instant for

synchronization purposes.

8.(currently amended)   The method according to ~~one of claims 1 to 7~~claim 1,

wherein the one or more parts of the receive signal are correlated with the

scaled training signal by means of a matched filter.

9.(currently amended)   The method according to ~~one of claims 1 to 8~~claim 1,

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wherein one or more correlation results in the form of estimated channel

impulse responses are obtained.

10.(original) The method according to claim 9,

wherein, for each possible timing instant, a channel impulse response signal

power contained in a respective time window of the received transmit signal is

determined.

11.(original) The method according to claim 10,

wherein the step of determining the timing information on the basis of the

correlation results comprises determining the time window containing the maximum

signal power.

12.(currently amended)   The method according to claim 10 or 11,

wherein based on the maximum signal power a false alarm detection is

performed.

13.(original) The method according to claim 12,

wherein the false alarm detection comprises comparing the maximum

signal power with a signal power threshold.

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14.(currently amended)   A computer program product comprising program code portions for performing the steps of ~~one of claims 1 to 13~~ claim 1 when the computer program product is run on a computer system.

15.   The computer program product according to claim 14 stored on a computer-readable recording medium.

16.(currently amended)   A receiver ~~(10)~~ of a wireless communication system for receiving a transmit signal, comprising

a unit ~~(12)~~ for providing a training signal relating to a known signal portion of the transmit signal;

a unit ~~(14)~~ for scaling the training signal;

a unit ~~(16)~~ for quantizing the scaled training signal;

a unit ~~(20)~~ for correlating one or more parts of the received transmit signal with the scaled training signal to obtain one or more correlation results; and

a unit ~~(22)~~ for determining timing information on the basis of the correlation results.

17.(currently amended)   The receiver according to claim 16,

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wherein the training signal comprises complex training values and wherein the unit (16) for quantizing the scaled training signal jointly quantizes a real part and an imaginary part of each training value.

18. (currently amended)   The receiver according to claim 16 or 17,

further comprising a unit (24) for detecting a false alarm on the basis of a maximum signal power contained within a time window of the received transmit signal.

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